In the Specification:

Please amend paragraph [0002] of the specification as follows:

[0002] This application is related to the following co-pending and commonly assigned patent application: ~~Attorney Docket 36128,~~ Serial No. ~~xx/xxxxxx,~~ 10/740,251, filed 12/18/2003, entitled "~~Improving~~ Trellis Decoding with Finite Constellation Boundaries," which application is hereby incorporated herein by reference.

Please amend paragraph [0041] of the specification as follows:

[0041] With reference now to Figure 7a, there is shown a diagram illustrating an algorithm 700 that can be used to locate closest cosets and closest constellation points for a received point wherein the tone represents an even number of bits, according to a preferred embodiment of the present invention. The algorithm 700 describes the decoding in greater detail than the algorithm 600 (Figure 6) described above. The decoding can begin after the receiver has received a received point, R. After receiving the received point, R, the decoding can compute a point, RG, which can be a constellation point in a 2-D grid that is nearest to the received point, R (block 705). Given that the 2-D coordinates of the received point, R, can be (Rx, Ry), then the computed point, RG, can be found using an equation:

~~RG = (RGx, RGy) = round((Rx + iRy – 1 – i)/2*2 + 1 + i,~~ RG = (RGx, RGy) = round((Rx + iRy – 1 – i)/2)*2 + 1 + i,

wherein RGx and RGy are the 2-D coordinates of the computed point, RG.

Please amend paragraph [0052] of the specification as follows:

[0052] With reference now to Figure 9a, there is shown a diagram illustrating an algorithm 900 that can be used to locate closest cosets and closest constellation points for a received point wherein the tone represents an odd number of bits (with exception of three (3)), according to a preferred embodiment of the present invention. The algorithm 900 describes the decoding in greater detail than the algorithm 600 (Figure 6) described above. Note that the algorithm 800 (Figure 8a) exploits the relatively simple structure of the constellation diagram when the number of bits is equal to three. The decoding can begin after the receiver has received a received point, R. After receiving the received point, R, the decoding can compute a point, RG, which can be a constellation point in a 2-D grid that is nearest to the received point, R (block 905). The point, RG, may have a set of 2-D coordinates (RGx, RGy) and can be found via an equation:

~~RG = (RGx, RGy) = round((Rx + iRy – 1 – i)/2*2 + 1 + I.~~ RG = (RGx, RGy) = round((Rx + iRy – 1 – i)/2)*2 + 1 + I.